



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,153	08/22/2007	Benjamin Kingsley Stuart Peacock	NOR-1397US	5056
37172	7590	03/08/2010		
WOOD, HERRON & EVANS, LLP (NORDSON)			EXAMINER	
2700 CAREW TOWER			DAVIS, OCTAVIA L	
441 VINE STREET				
CINCINNATI, OH 45202			ART UNIT	PAPER NUMBER
			2855	
			NOTIFICATION DATE	DELIVERY MODE
			03/08/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krooney@whepatent.com

mhines@whepatent.com

usptodock@whepatent.com

### Office Action Summary

**Application No.**

10/599,153

**Applicant(s)**

PEECCOCK ET AL.

**Examiner**

OCTAVIA DAVIS

**Art Unit**

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-14 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) 16-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt is acknowledged of applicant's amendment filed 12/10/09.

#### ***Election/Restrictions***

1. Newly submitted claims 27 and 28 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 27 includes the limitations “an abutment adapted to restrain the substrate while the apparatus for moving said gripper continues to move said gripper along said axis to break the ball off the substrate, and a force measuring apparatus configured to measure the force required to break the ball off the substrate” of which are new with respect to the originally presented claims. Claim 28 includes the limitations “continuing to move the test tool while still gripping the ball to break the ball off the substrate and measuring the force required to break the ball off the substrate” of which are new with respect to the originally presented claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16 – 28 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11 – 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson et al (5,401,911).

Regarding claim 11, Anderson et al disclose formations of connections between layers and substrates comprising gripping a conductive ball 16 with a test tool 12 (See Fig. 1), moving the ball in a direction substantially orthogonal to the plane of adherence of the ball while whilst urging a substrate 100, through a moving action of the flow of the material substrate, against the ball and abruptly halting the substrate as the movement of the ball is stopped (See Col. 6, lines 46 – 67 and Col. 7, lines 30 – 41).

Regarding claim 12, the substrate is attached to a platen 14, whereby the platen is abruptly halted, thereby indirectly halting the substrate (See Fig. 2).

Regarding claims 13 and 14, a pneumatic ram or driver 18 aids in moving the substrate against the ball, and applies air under pressure to the driver in an amount sufficient to ensure a compressive load between the ball and substrate up to the time when the substrate is abruptly halted (See Col. 6, lines 18 – 26).

### ***Response to Arguments***

4. Applicant's arguments, on Pg. 8, lines 6 – 11, with respect to these claims have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Benenati et al (6,358,627) disclose a rolling ball connector.

Schmidt (5,948,997) discloses a swaged connection testing apparatus.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OCTAVIA DAVIS whose telephone number is (571)272-2176. The examiner can normally be reached on Mon-Fri 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lisa Caputo can be reached on 571-272-2388. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. D./  
Examiner, Art Unit 2855  
2/27/10

/Lisa M. Caputo/  
Supervisory Patent Examiner, Art Unit 2855

Application/Control Number: 10/599,153  
Art Unit: 2855

Page 5